



# CITY OF LODI

PUBLIC WORKS DEPARTMENT

## COUNCIL COMMUNICATION

TO: City Council  
FROM: City Manager  
MEETING DATE: August 16, 1989  
AGENDA TITLE: Contract Agreement for Construction Management Services for White Slough Water Pollution Control Facility Expansion, 12751 North Thornton Road

**RECOMMENDED ACTION:** That the City Council authorize the City Manager and City Clerk to execute the Construction Management Agreement (Work Order No. 3 of Master Agreement) between the City of Lodi and the engineering firm of Black and Veatch.

**BACKGROUND INFORMATION:** In February 1987, the City Council approved the Master Agreement, together with the Preliminary Engineering Agreement (Work Order No. 1), between the City and the firm of Black and Veatch. In May 1988, the City Council approved the Design Engineering Agreement (Work Order No. 2). The work under the Design Engineering Agreement is essentially complete.

In general, the work under the construction management agreement includes holding a pre-bid conference, contract document printing and distribution, performing contract administration and related office engineering, providing a full-time contract resident inspector and a part-time electrical inspector, updating the operation and maintenance manual, and providing start-up and warranty period support. The detail of tasks to be provided is covered in the attached agreement.

It has been determined that it's in the City's best interest to provide part-time clerical personnel rather than having this work included under the subject agreement. It is estimated that the clerical position will be needed for approximately four hours per day and this position will be paid on an hourly basis. It has also been found that it's in the City's best interest to provide some of the day-to-day electrical inspection. This inspection will be supervised by a resident inspector and will be performed by White Slough's full-time Electrical Technician.

The total estimated cost under the Construction Management Agreement Work Order No. 3 is \$581,000. It is estimated that the construction of the facility will take approximately 19 months and the work under the start-up and warranty support period will take an additional 12 months.

APPROVED:


  
THOMAS A. PETERSON, City Manager

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The Public Works Department did solicit a proposal from the construction management firm of Harris and Associates. This firm specializes in the construction management of municipal wastewater plants and other major public facilities. After reviewing their proposal and adding the additional work that would have to still be done by Black and Veatch (i.e., pre-bid work, office engineering, shop drawing review, operation and maintenance manual update, and start-up), it was decided that it is economically and professionally in our best interest to have Black and Veatch perform the construction management function.

The subject agreement (Work Order No. 3) is attached. If the City Council is interested in reviewing the Master Agreement, it is available in the Public Works Department office



Jack L. Ronsko  
Public Works Director

JLR/mt

Attachment

cc: Water/Wastewater Superintendent  
City Attorney  
Black and Veatch

ATTACHMENT TO ENGINEERING AGREEMENT

BETWEEN

CITY OF LODI

AND

BLACK & VEATCH

DATED \_\_\_\_\_, 1989

WORK ORDER NO. 3

CONSTRUCTION MANAGEMENT

1.0 INTRODUCTION

This Work Order details discrete construction management, startup, and operation and maintenance services.

2.0 CONSTRUCTION CONTRACTS

All construction will be accomplished through a single prime contractor.

3.0 SCOPE OF CONSTRUCTION MANAGEMENT SERVICES

To assure adherence to the project concept, **plans**, and specifications during the construction period, Black & Veatch will perform services in the following categories: prebid and award; project administration; office engineering; resident services during construction; operations and maintenance manual update and startup assistance. A detailed breakdown of specific tasks within each of these categories follows.

3.1 Prebid

Activities under this phase of the work will include: a prebid conference at the project site, and contract document printing, distribution, and record keeping.

3.1a Prebid Conference. A project orientation conference will be conducted by Black & Veatch at the project site approximately two weeks prior to the project bid date. The purpose of the conference will be to transmit or otherwise clarify contract documents. project

requirements, and constraints that may be unclear to the prospective bidders. Minutes of the conference, which may take the form of an addendum, will be distributed to all plan holders.

3.1b Contract Document Printing, Distribution, and Record Keeping. The following services shall be provided by Black & Veatch under this section:

- o Printing of contract documents for distribution to prospective bidders.
- o Prepare "Notice to Bidders" for advertisement and provide recommended newspaper outlets.
- o Respond to bidders' questions during the bidding period.
- o Prepare and distribute addends to the contract documents when required.
- o Assist City during bid opening. Answer questions during bid opening, make preliminary tabulation of bids, and review questionnaires and bids for completeness.
- o Review the questionnaire to determine the acceptability of materials and equipment submitted by the apparent successful bidder when the review is required by the bidding documents subsequent to bid opening and prior to award of contract.
- o Review and evaluate the qualifications of the apparent successful bidder and the proposed major or specialty subcontractors. The review and evaluation will include such factors as: work previously completed, whether adequate equipment is available to complete the work properly and expeditiously, financial resources, and technical experience.
- o Prepare and distribute conforming copies of the construction contract documents. These services will include review of Contractor's bonds, furnishing the Contractor unsigned construction contract documents, and transmitting the construction contract documents to Owner for signature and distribution.
- o All administrative work related to plan holders' list and plan deposits.

- o Supply 15 sets of full-size contract drawings to the successful bidder.

### 3.2 Project Administration

Engineer will perform project administration services during the construction phase of the project. By performing these services, Engineer **shall** not have authority or responsibility to **supervise**, direct, or control Contractor's work or Contractor's means, methods, techniques, sequences, or procedures of construction. Engineer shall not have authority or responsibility for safety precautions and programs incident to Contractor's work or for any failure of Contractor to comply with laws, regulations, rules, ordinances, codes, or orders applicable to Contractor furnishing and performing the work. Specific services to be performed by Engineer are as follows:

- 3.2a At a date and time selected by the Owner and at a facility provided by the Owner, conduct a preconstruction conference. Engineer shall prepare an agenda for the conference, and prepare and distribute minutes. The preconstruction conference shall include a discussion of Contractor's tentative schedules, procedures for transmittal and review of Contractor's submittals, processing payment applications, critical work sequencing, change orders, record documents, and Contractor's responsibilities for safety and first aid.
- 3.2b Review and comment on the Contractor's initial and updated construction schedule and advise Owner as to acceptability.
- 3.2c Analyze Contractor's construction schedule, activity sequence, and construction procedures as applicable to Owner's ability to keep existing facilities in operation.
- 3.2d Review the Contractor's initial and updated schedule of estimated monthly payments and advise Owner as to acceptability.

- 3.2e Receive and review guarantees, bonds, and certificates of inspection, and tests and approvals which are to be assembled by the Contractor in accordance with the construction contract documents and transmit them to Owner.
- 3.2f Review and process Contractor's monthly payment requests, and forward to the City if appropriate. Engineer's review shall be for the purpose of making a full independent mathematical check of Contractor's payment request.. Engineer is responsible for verifying the quantities of work which are the basis of the payment requests.
- 3.2g Provide documentation and administer the processing of change orders, including applications for extension of construction time. Evaluate the cost and scheduling aspects of all change orders and, where necessary, negotiate with the Contractor to obtain a fair price for the work. Said negotiation shall be subject to the approval of the Owner.
- 3.2h Act as initial arbiter on all claims of Owner and Contractor relating to the acceptability of the work or the interpretation of the requirements of the construction contract documents pertaining to the execution and progress of the work.
- 3.2i Apply for consent of surety to final payment.

### 3.3 Office Engineering

- 3.3a Review drawings and data submitted by Contractor as required by the construction contract documents. Engineer's review shall be for general conformity to the construction contract drawings and specifications for the project and shall not relieve the Contractor of any of his contractual responsibilities. Such reviews shall not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions and programs incident thereto. One hundred and forty (140) man-days will be allocated to

this review. Additional review time will be funded under the supplemental work phase.

- 3.3b Evaluation of Substitutions. Submittals of equipment, materials, or methods of operation that vary from those specified in the contract documents shall be reviewed if such review is desired and authorized by the City.
- 3.3c Obtain photographs of the construction site prior to the start of the construction to assist in defining the original condition of existing physical features, including but not limited to, pavement, curb and gutter, lawns, shrubs, trees, ditches, fences, sidewalks, buildings, and structures that are located within the limits of construction.
- 3.3 Make periodic visits to the construction site to observe progress of the work, and consult with the Owner and Contractor concerning problems and progress of the work. A total of 19 visit(s) will take place. Additional visits will be funded under the supplemental work phase.
- 3.3e Interpret construction contract drawings when requested by the Owner or Contractor. If authorized by the Contractor, Engineer may interpret construction contract drawings and specifications upon request by subcontractors and suppliers. One hundred twenty (120) man-days will be allocated to this task. Additional drawing interpretation will be funded under the supplemental work phase.
- 3.3f Upon completion of the project, re-raise the construction contract drawings to conform to the construction records. Submit complete sets of mylars.
- 3.3g Analyze data from performance testing of equipment by Contractor or supplier when the construction contract documents require the equipment to be tested after installation. Submit conclusions to Owner.

- 3.3h Upon substantial completion, inspect the construction work and prepare a listing of those items to be completed or corrected before final completion of the project. Submit results of the inspection to Owner and Contractor.
- 3.3i Upon completion or correction of the items of work on the punch list, conduct a final inspection to determine if the work is completed. Provide written recommendations concerning final payment to Owner, including a list of items, if any, to be completed prior to the making of such payment.
- 3.3j Collect and organize three sets of operation and maintenance data provided by Contractor. Each set will be placed in separate binders, the binders indexed, and a table of contents provided. Binders will be submitted to Owner.
- 3.3k Specialty Inspection. The resident engineer will be supported by specialty inspection services by Black & Veatch Structural, Electrical, and Instrumentation Engineers, as required.

3.4 Resident Services During Construction

Engineer will furnish a full-time Resident Project Representative and an assistant project representative, and will supervise part time clerical support provided by the Owner on the work site. The Resident Project Representative and assistant will observe the Contractor's work and perform the services listed below. The Resident Project Representative and assistant shall not have responsibility for the superintendence of construction site conditions, safety, safe practices or unsafe practices or conditions, operation, equipment, or personnel other than employees of the Engineer. This service will in no way relieve the Contractor of complete supervision of the work or the Contractor's obligation for complete compliance with the drawings and specifications. The Contractor shall have sole responsibility for safety and for maintaining safe practices and avoiding unsafe practices or conditions. Specific services performed by the Resident Project Representative and assistant are as follows:



3.4a **Site** Observations and Liaison with Owner and Contractor(s)

- o Conduct onsite observations of the general progress of the work to assist Engineer in determining if the work is proceeding in accordance with the construction contract documents.
- o Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent, and assist Engineer in providing interpretation of the construction contract documents. Transmit Engineer's clarifications and interpretations of the construction contract documents to Contractor.
- o Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's onsite operation.
- o As requested by Engineer, assist in obtaining from Owner additional details or information when required at the jobsite for proper execution of the work.
- o Consult with the Owner and the Contractor, giving opinions and suggestions based on his (Resident Project Representative's) observations regarding defects or deficiencies in the Contractor's work and relating to compliance with drawings, specifications, and design concepts.
- o Advise Engineer and Contractor or its Superintendent immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been accepted by Engineer.
- o Observe pertinent site conditions when Contractor maintains that differing site have been encountered and document actual **site** conditions. Review 2nd analysis of Contractor claims for differing site conditions are supplemental services.
- o Review Contractors' construction sequence and traffic control plans for all construction work undertaken simultaneously.
- o Contact utilities in the general construction area and advise them of Contractor's schedule. Assist in coordinating scheduling of utility activities so as to minimize conflicts with Owner's activities.

- o Provide necessary construction staking for the project, including establishing basic horizontal and vertical control points, staking alignment and grade of pipelines and turnouts, pump stations, and appurtenances.
- o Visually inspect materials, equipment, and supplies delivered to the worksite. Reject materials, equipment, and supplies which do not conform to the construction contract documents.
- o Coordinate onsite materials testing services during construction. Copies of testing results will be forwarded to Owner for review and information. All materials testing will be performed by the Owner, reported to the Resident Project Representative, and forwarded back to the Owner's Project Manager.
- o Observe field tests of equipment, structures and piping, and review the resulting reports, commenting to Owner as appropriate.

3.4b Meetings, Reports, and Document Review and Maintenance

- o Attend the preconstruction conference, and assist Engineer in explaining administrative procedures which will be followed during construction.
- o Prepare for and attend monthly progress meetings, and other meetings when deemed necessary, with the Owner and Contractor to review and discuss construction procedures and progress scheduling, engineering management procedures, and other matters concerning the project.
- o Submit to the Owner weekly construction progress reports containing a summary of the Contractor's progress, general conditions of the work, problems, and resolutions or proposed resolutions of problems.
- o Review the progress schedule, schedule of shop drawings submissions, and schedule of values prepared by Contractor and consult with Engineer concerning their acceptability.
- o Report to Engineer whenever work is known to be defective, or does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged prior to

final papent, and advise Engineer when the work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval.

- o Review applications for payment with Contractor for compliance with the estsblished procedure for their submission and forward them with recommendations to Engineer, noting particularly their relation to the schedule of values, work completed. and materials and equipment delivered at the site but not incorporated into the work.
- o Record date of receipt of shop drawings and samples. Receive samples which are furnished at the site by Contractor, and notify Engineer of their availability for eramination.
- o During course of the work, verify that certificates, maintenance and operation manuals, and other data required to be assembled and furnished by Contractor are applicable to the items actually installed; and deliver this material to the Engineer for his review and forwarding to Owner prior to final acceptance of the work.
- o Maintain a marked set of record drawings and specifications at the jobsite based on data provided by the Contractor. This information will be combined with information maintained by the Contractor and a master set of record documents produced.
- o Review certificates of inspections. testings, and related approvals submitted by the Contractor in compliance with or required by laws, rules, regulations, ordinances, codes. orders, or the Contract Documents (but only to determine that their content complies with the requirements of, and results certified indicate compliance with, the ccnstruction contract documents). This service is limited to a review of items submitted by the Contractor and does not extend to a determination of whether the Contractor has complied with all legal requirements.
- o Collect, organize, and place-in set(s) of binders ail operation 2nd maintenance data provided by the Contractor(s). Binders will be indexed and a table of contents provided. Provide sets to the Owner.

3.4c Maintain the following documents at the jobsite.

- o Correspondence files.
- o Reports of job conferences, meetings, and discussions among the Engineer, Owner, and Contractor.
- o Shop drawings and samples submissions.
- o Reproductions of original construction contract documents.
- o Addenda.
- o Change orders.
- o Field orders.
- o Additional drawings issued subsequent to execution of the construction contract documents.
- o Engineer's clarifications and interpretations of the construction contract documents.
- o Progress reports.
- o Names, addresses, and telephone numbers of all contractors, subcontractors, and major suppliers of materials and equipment.

3.4d Maintain a daily diary or log book of events occurring at the jobsite, including the following information:

- o Contractor's hours on the jobsite.
- o Contractor and subcontractor personnel on jobsite.
- o Construction equipment on jobsite and hours of use.
- o Observed delays and causes.
- o Weather conditions.
- o Data relative to questions of extras or deductions.
- o List of visitors.
- o Daily activities.
- o Decisions.
- o Observations connected with the progress of the work.
- o Materials received on jobsite.

The diary or log book shall remain the property of the Engineer.

3.4e Assistance in Certification of Substantial Completion

- o Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.

- o Assist Engineer in conducting final inspection in the companies of Owner and Contractor, and prepare a final list of items to be completed or corrected.
- o Verify that all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance.
- o Obtain photographs of the construction site after completion of construction.

3.3f Materials Testing. These services will be provided by the Owner.

#### 4.0 STARTUP AND OPERATIONS

##### 4.1 Operations and Maintenance Manual Update Memorandum

Black & Veatch will prepare a memorandum describing the design intent for operation of expanded facilities and the new process units. The new processes to be covered include:

- o Secondary Sedimentation

##### 4.2 Startup and Warranty Period Support

The Engineer will assist the City in developing startup plans for the new process facilities. Under this task, Black & Veatch will conduct a training session encompassing classroom and hands-on training necessary to provide City staff with knowledge necessary for effective operation and maintenance. A draft program shall be submitted to the City's water/wastewater superintendent for review and comment prior to implementation of the program.

Black & Veatch shall also supply a maximum of three weeks of onsite assistance during the first year of operation of the expanded facilities.

#### 5.0 TIME FOR COMPLETION

The time of completion for the construction management, startup, and operation and maintenance services shall be as follows:

<u>Task</u>	<u>Completion</u>
3.1 ?rebid	3 months
3.2 Project Admininstration	19 months from contract award
3.3 Office Engineering	19 months from contract award
3.4 Resident Services During Construction	19 months from contract award
4.0 Startup and Operations	
Begin	3 months before substantial completion
Complete	12 months after full completion

#### 6.0 COMPENSATION AND PAYMENT

Compensation shall be based as provided for in Section II of the Agreement, with the exception that indirect expenses shall be equal 1.3 times the direct labor cost for all office personnel and 1.0 times the direct labor for all field personnel. The cost for the work is \$505,217 and the fixed fee is \$75,783 with a total price of \$581,000.

In addition, a supplemental work task in the amount of \$55,000 is included for additional shop drawing review, periodic site visits and drawing interpretation (Task 6). This fund is to be used only as mutually agreed by the Public Works Director and the project manager. A separate monthly accounting of any use of this fund will be provided to the City.

Details of the compensation are summarized in Attachment No. 1 to this work order.

#### 7.0 NOTICES

All notices herein required shall be in writing and delivered in person or sent by mail.

Notices required to be given to City shall be addressed as follows:

Jack L. Ronsko  
Public Works Director  
221 West Pine Street  
Call Box 3006  
Lodi, CA 95241-1910

- D R A F T -

Notices required to be given to Engineer shall be addressed as follows:

Black & Veatch  
Attention: Randy Fiorucci  
3470 Buskirk Avenue  
Pleasant Hill, CA 94523

8.0 EFFECTIVE DATE

This work order shall be authorized on the last data executed by the parties signing below.

BLACK & VEATCH , ENGINEERS-ARCHITECTS

Date \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Attested By:

CITY OF LODI

Date \_\_\_\_\_

By \_\_\_\_\_

Thomas A. Peterson

Title City Manager

Approved as to form:

\_\_\_\_\_  
Eob McNatt

Title City Attorney

Attes::

\_\_\_\_\_  
Alice M. Reimche

Title City Clerk

CITY OF LODI, CALIFORNIA  
ATTACHMENT NO. 1 TO WORK ORDER NO. 3  
COST SUMMARY

	<u>Staff Hours</u>	<u>Direct Labor</u> \$	<u>Indirect<sup>a</sup> Expenses</u> \$	<u>Direct Expenses</u> \$	<u>Subtotal</u> \$	<u>Fixed<sup>b</sup> Fee</u> \$	<u>Total Cost</u> \$
Task 1 Prebid	350	7,770	10,160	23,000	40,870	6,130	47,000
Task 2 Project Administration	300	8,147	10,592	3,000	21,739	3,261	25,000
Task 3 Office Engineering							
Shop Drawings	1,120	27,637	35,928	6,000	69,565	10,435	80,000
Site Visits	152	4,654	6,050	600	11,304	1,696	13,000
Clarifications	960	22,192	28,851	2,000	53,043	7,957	61,000
Record Drawings	<u>392</u>	<u>9,064</u>	<u>11,784</u>	<u>3,500</u>	<u>24,248</u>	<u>3,652</u>	<u>28,000</u>
Subtotal	2,624	63,548	82,613	12,100	158,260	23,740	182,000
Task 4 Resident Services	4,536	115,761	115,761	25,000	256,522	38,478	295,000
Task 5 Startup and Operations	<u>568</u>	<u>10,794</u>	<u>14,032</u>	<u>3,000</u>	<u>27,826</u>	<u>4,174</u>	<u>32,000</u>
Total Construction Management	8,378	206,000	233,098	66,100	505,217	75,783	581,000
Task 6 Supplemental Work	0	19,923	25,902	2,000	47,826	7,174	55,000

<sup>a</sup> 1.3 times direct labor for office personnel; 1.0 times direct labor for field personnel.

<sup>b</sup> Fixed fee is based on 15 percent profit.